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EXAMINER

DESIR, PIERRE LOUIS

ART UNIT	PAPER NUMBER
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2617

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/09/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/682,117	TESHIROGI, KEIICHI	
	Examiner	Art Unit	
	Pierre-Louis Desir	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-16 are pending in the present Application. Claims 17-23 are withdrawn from consideration by Applicants in view of Election/Restriction.

Response to Arguments

2. Applicant's arguments with respect to claims 1-10 have been considered but are moot in view of the new ground(s) of rejection.

3. Applicant's arguments filed on 11/13/2006, as related to claims 11-16 have been fully considered but they are not persuasive.

Applicants argue that Onodera does not disclose the claimed feature that the communication terminal stops receiving control information.

Examiner respectfully disagrees. Onodera discloses a system wherein when a PHS telephone is moved from a service area of one radio base station which is hereinafter called an original station to another service area of another radio base station which is hereinafter called a new station, the PHS telephone receives a control signal from the new station and notifies the new station that the PHS telephone can communicate with the new station so that the PHS telephone can not receive a control signal from the original station any more (see paragraph 5). Thus, the PHS telephone received a control signal (i.e., command or instruction) so that the PHS cannot receive a control signal from the original station anymore.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-7, and 11-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hasegawa, U.S. Patent No. 5862476, in view of a Onodera et al. (Onodera), Pub. No. US 20020052997.

Regarding claim 1, Hasegawa discloses base station which continuously transmits control information to at least one communication terminal in an area in order to perform a communication control of the communication terminal (i.e., the base station control equipment connected to the base station transmits and receives a variety of control information with the mobile station equipment located in the radio zone) (see col. 4, lines 22-28), comprising: a control information generating part configured to generate control information (i.e., the control part 83) (see col. 4, lines 9-11); a communications part configured to continuously transmit the control information generated by the control information generating part to the communication terminal in the area (i.e., base station control equipment) (see col. 4, lines 22-28).

Although Hasegawa discloses a base station comprising a control information control part, which controls the communication part (i.e., shelf control part 60-1) (see col. 1, lines 46-53), Hasegawa does not specifically disclose that the control information control part (i.e., shelf control part) is for making the communication terminal in the area unable to recognize the

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control information by controlling at least one of the control information generating part and the communications part.

However, Onodera discloses a system wherein each radio base station effectively stops transmitting control signals when all communication channels of each radio base station are occupied, since each radio base station is equipped with a function of stopping transmitting control signals. Therefore, each mobile radio terminal equipment can receive control signals from another radio base station and start to communicate with a vacant communication channel of another radio base station (paragraph 63). Also, it should be noted that Onodera discloses that the PHS telephone receives a control signal from the new station and notifies the new station that the PHS telephone can communicate with the new station so that the PHS telephone can not receive a control signal from the original station any more (see paragraph 5). Therefore, as the base station stops transmitting control signals, the mobile radio terminal will be unable to recognize the control signals (i.e., control information).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described to arrive at the claimed invention. A motivation for doing so would have been to ensure that the mobile terminal is properly notified of vacant and no-vacant channels.

Regarding claim 2, Hasegawa discloses base station (see claim 1 rejection) wherein the control information control part performs an analysis of the communication control of the communication terminal in the area (i.e., when any control information from the mobile station equipment is received, the base-station control equipment 56 analyzes the control information,

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and processes adaptive to these analysis result of the predetermined plural processes are successively carried out) (see col. 4, lines 28-33).

Although Hasegawa discloses a base station wherein specific analysis result is obtained from the analysis as described above, Hasegawa does not specifically disclose a base station wherein when a specific analysis result is obtained, makes the communication terminal in the area unable to recognize the control information by controlling at least one of the control information generating part and the communications part.

However, Onodera discloses a system wherein each radio base station effectively stops transmitting control signals when all communication channels of each radio base station are occupied, since each radio base station is equipped with a function of stopping transmitting control signals. Therefore, each mobile radio terminal equipment can receive control signals from another radio base station and start to communicate with a vacant communication channel of another radio base station (see paragraphs 57-63). Also, it should be noted that Onodera discloses that the PHS telephone receives a control signal from the new station and notifies the new station that the PHS telephone can communicate with the new station so that the PHS telephone can not receive a control signal from the original station any more (see paragraph 5). Therefore, as the base station stops transmitting control signals, the mobile radio terminal will be unable to recognize the control signals (i.e., control information).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described to arrive at the claimed invention. A motivation for doing so would have been to ensure that the mobile terminal is properly notified of vacant and no-vacant channels.

Regarding claim 3, Hasegawa discloses a base station (see claim 1 rejection) wherein the base station is connected to a base station control apparatus (i.e., the base station control equipment 56 is connected to the base station) (see col. 4, lines 22-23), the communication part can receive a control instruction, which instructs the control information control part to control the control information (see col. 4, lines 20-33).

However, Onodera discloses a system wherein each radio base station effectively stops transmitting control signals when all communication channels of each radio base station are occupied, since each radio base station is equipped with a function of stopping transmitting control signals. Therefore, each mobile radio terminal equipment can receive control signals from another radio base station and start to communicate with a vacant communication channel of another radio base station (see paragraphs 57-63). Also, it should be noted that Onodera discloses that the PHS telephone receives a control signal from the new station and notifies the new station that the PHS telephone can communicate with the new station so that the PHS telephone can not receive a control signal from the original station any more (see paragraph 5). Therefore, as the base station stops transmitting control signals, the mobile radio terminal will be unable to recognize the control signals (i.e., control information).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described to arrive at the claimed invention. A motivation for doing so would have been to ensure that the mobile terminal is properly notified of vacant and no-vacant channels.

Regarding claim 4, Hasegawa discloses a base station as described (see claim 2 rejection) further comprising a communication channel setting part for managing at least one

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communication channel which can be set for the communication terminal in the area (i.e., based on managing information in the base station equipment whether or not the mobile station equipment is within the own radio zone, one of the up-link stand-by permission level and the up-link stand-by degradation level may be selected and set) (see col. 17, lines 60-64), receiving a setting request for a communication channel from the communication terminal in the area which received the control information (see col. 4, lines 22-27), and setting the communication channel for the communication terminal in the area having sent the setting request for the communication channel (i.e., the base station control equipment receives and transmits a variety of control information, including call requests, selection calling command, with the mobile station equipment located in the radio zone) (see col. 4, lines 22-27), wherein the control information control part analyzes a setting situation of the communication channel for the communication terminal in the area (i.e., when any control information from the mobile station equipment is received, the base station control equipment analyzes the control information, and processes adaptive to these analysis results of the predetermined plural processes are successively carried out) (see col. 4, lines 28-33).

Although, Hasegawa discloses a base station as described, Hasegawa does not specifically disclose a base station wherein in a case of a number of vacant communication channels which are not set for the communication terminal in the area becoming equal to or less than a certain number, makes the communication terminal in the area unable to recognize the control information, by controlling at least one of the control information generating part and the communications part.

However, Onodera discloses a system wherein each radio base station effectively stops transmitting control signals when all communication channels of each radio base station are occupied, since each radio base station is equipped with a function of stopping transmitting control signals. Therefore, each mobile radio terminal equipment can receive control signals from another radio base station and start to communicate with a vacant communication channel of another radio base station (see paragraphs 57-63). Also, it should be noted that Onodera discloses that the PHS telephone receives a control signal from the new station and notifies the new station that the PHS telephone can communicate with the new station so that the PHS telephone can not receive a control signal from the original station any more (see paragraph 5). Therefore, as the base station stops transmitting control signals, the mobile radio terminal will be unable to recognize the control signals (i.e., control information).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described to arrive at the claimed invention. A motivation for doing so would have been to ensure that the mobile terminal is properly notified of vacant and no-vacant channels.

Regarding claim 5, Hasegawa discloses a base station as described (see claim 2 rejection) further comprising a communication channel setting part for managing at least one communication channel which can be set for the communication terminal in the area (i.e., based on managing information in the base station equipment whether or not the mobile station equipment is within the own radio zone, one of the up-link stand-by permission level and the up-link stand-by degradation level may be selected and set) (see col. 17, lines 60-64), receiving a setting request for a communication channel from the communication terminal in the area which

received the control information (see col. 4, lines 22-27), and setting the communication channel for the communication terminal in the area having sent the setting request for the communication channel (i.e., the base station control equipment receives and transmits a variety of control information, including call requests, selection calling command, with the mobile station equipment located in the radio zone) (see col. 4, lines 22-27). Hasegawa also discloses a base station wherein the control information control part analyzes a setting situation of the communication channel for the communication terminal in the area (i.e., when any control information from the mobile station equipment is received, the base station control equipment analyzes the control information, and processes adaptive to these analysis results of the predetermined plural processes are successively carried out) (see col. 4, lines 28-33).

Although Hasegawa discloses a base station as described, the combination does not specifically disclose a base station wherein the control information control part analyzes communication traffic of another communication terminal in the area for which the communication channel has been set, nor does Hasegawa disclose a base station wherein in a case of the communication traffic of the another communication terminal in the area for which the communication channel has been set becoming equal to or greater than a specific level, makes the communication terminal in the area unable to recognize the control information, by controlling at least one of the control information generating part and the communications part.

However, Onodera discloses a communication system comprising of a plurality of mobile telephones connected to a controller and a radio base station (see abstract and fig. 1). Onodera also discloses a system wherein each radio base station effectively stops transmitting control signals when all communication channels of each radio base station are occupied, since each

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radio base station is equipped with a function of stopping transmitting control signals. Therefore, each mobile radio terminal equipment can receive control signals from another radio base station and start to communicate with a vacant communication channel of another radio base station (see paragraphs 57-63). Also, it should be noted that Onodera discloses that the PHS telephone receives a control signal from the new station and notifies the new station that the PHS telephone can communicate with the new station so that the PHS telephone can not receive a control signal from the original station any more (see paragraph 5). Therefore, as the base station stops transmitting control signals, the mobile radio terminal will be unable to recognize the control signals (i.e., control information).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the references to arrive at the claimed invention. A motivation for doing so would have been to provide a seamless communication by using a communication channel of another radio base station in a same service area (see paragraph 7).

Regarding claim 6, Hasegawa discloses a base station as described above (see claim 1 rejection).

Although Hasegawa discloses a base station as described, Hasegawa does not specifically disclose a base station wherein the control information control part transmits an instruction to the communications part to stop transmitting the control information when the predetermined condition is met, and the communications part stops transmitting the control information to the communication terminal in the area, based on the instruction from the control information control part.

However, Onodera discloses a communication system wherein the control information control part transmits an instruction to the communications part to stop transmitting the control information, and the communications part stops transmitting the control information to the communication terminal in the area, based on the instruction from the control information control part (i.e., The system control section 1013 directs the CS call control section 1012 to stop transmitting control signals. The CS call control section 1012 stops transmitting control signals after the CS call control section 1012 confirmed that all communication channels were busy) (see paragraph 59).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the references to arrive at the claimed invention. A motivation for doing so would have been to provide a seamless communication using a communication channel of another radio base station in a same service area (see paragraph 7).

Regarding claim 7, Hasegawa discloses a base station as described above (see claim 1 rejection).

Although Hasegawa discloses a base station as described, Hasegawa does not specifically disclose a base station wherein the control information control part transmits an instruction to the control information generating part to generate the control information by using a signal configuration which the communication terminal in the area can not recognize when the predetermined condition is met, the control information generating part generates the control information by using the signal configuration which the communication terminal in the area can, based on the instruction from the control information control part, and the communications part transmits the control information generated by the control information generating part using the

signal configuration which the communication terminal in the area can not recognize the control information, to the communication terminal in the area.

However, Onodera discloses a system wherein each radio base station effectively stops transmitting control signals when all communication channels of each radio base station are occupied, since each radio base station is equipped with a function of stopping transmitting control signals. Therefore, each mobile radio terminal equipment can receive control signals from another radio base station and start to communicate with a vacant communication channel of another radio base station (see paragraphs 57-63). Also, it should be noted that Onodera discloses that the PHS telephone receives a control signal from the new station and notifies the new station that the PHS telephone can communicate with the new station so that the PHS telephone can not receive a control signal from the original station any more (see paragraph 5). Therefore, as the base station stops transmitting control signals, the mobile radio terminal will be unable to recognize the control signals (i.e., control information).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described to arrive at the claimed invention. A motivation for doing so would have been to ensure that the mobile terminal is properly notified of vacant and no-vacant channels.

Regarding claim 11, Hasegawa discloses a base station which continuously transmits control information to at least one communication terminal in an area to perform a communication control of the communication terminal (i.e., the base station control equipment connected to the base station transmits and receives a variety of control information with the mobile station equipment located in the radio zone) (see col. 4, lines 22-28), comprising: a

communications part configured to continuously transmit the control information generated by the control information generating part to the communication terminal in the area (i.e., base station control equipment) (see col. 4, lines 22-28).

Although Hasegawa discloses a base station comprising a control information control part (i.e., shelf control part 60-1) (see col. 1, lines 46-53), and a stand-by control section, which comprises control a section for waiting for impermissible information transmitted from the base station equipment for proceeding to an out-of-zone state upon receiving the impermissible information (see col. 5, line 66 through col. 6, line 5), Hasegawa does not specifically disclose a base station wherein a control information control part configured to generate reception-stop-instruction information which instructs the communication terminal in the area to stop receiving the control information when a predetermined condition is met, wherein the communications part transmits the reception-stop-instruction information generated by the control information control part to the communication terminal in the area.

However, Onodera discloses a communication system wherein a system control section 1013 directs the CS call control section 1012 to stop transmitting control signals. The CS call control section 1012 stops transmitting control signals after the CS call control section 1012 confirmed that all communication channels were busy (see paragraphs 57-63). Onodera also discloses a system wherein when a PHS telephone is moved from a service area of one radio base station which is hereinafter called an original station to another service area of another radio base station which is hereinafter called a new station, **the PHS telephone receives a control signal from the new station and notifies the new station that the PHS telephone can communicate with the new station so that the PHS telephone can not receive a control**

signal from the original station any more (see paragraph 5). Thus, the PHS telephone received a control signal (i.e., command or instruction) so that the PHS cannot receive a control signal from the original station anymore.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the references to arrive at the claimed invention. A motivation for doing so would have been to provide a seamless communication using a communication channel of another radio base station in a same service area (see paragraph 7).

Regarding claim 12, Hasegawa discloses a base station (see claim 11 rejection) wherein the control information control part performs an analysis of the communication control of the communication terminal in the area (i.e., when any control information from the mobile station equipment is received, the base-station control equipment 56 analyzes the control information, and processes adaptive to these analysis result of the predetermined plural processes are successively carried out) (see col. 4, lines 28-33).

Although Hasegawa discloses a base station wherein specific analysis result is obtained from the analysis as described above, Hasegawa does not specifically disclose a base station wherein in a case of obtaining a specific analysis result, generates the reception-stop-instruction information.

However, Onodera discloses a communication system wherein a system control section 1013 directs the CS call control section 1012 to stop transmitting control signals. The CS call control section 1012 stops transmitting control signals after the CS call control section 1012 confirmed that all communication channels were busy (see paragraphs 10, 57-63). Onodera also discloses a system wherein when a PHS telephone is moved from a service area of one radio

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base station which is hereinafter called an original station to another service area of another radio base station which is hereinafter called a new station, the PHS telephone receives a control signal from the new station and notifies the new station that the PHS telephone can communicate with the new station so that the PHS telephone can not receive a control signal from the original station any more (see paragraph 5). Thus, the PHS telephone received a control signal (i.e., command or instruction) so that the PHS cannot receive a control signal from the original station anymore.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings to arrive at the claimed invention. A motivation for doing so would have been to provide a seamless communication system as to when transmission of control information stops, the mobile radiotelephone can communicate with another radio base station in the same service area (see paragraph 7).

Regarding claim 13, Hasegawa discloses a base station (see claim 1 rejection) wherein the base station is connected to a base station control apparatus (i.e., the base station control equipment 56 is connected to the base station) (see col. 4, lines 22-23), the communication part can receive a control instruction, which instructs the control information control part to control the control information (see col. 4, lines 20-33).

Although Hasegawa discloses a base station as described, Hasegawa does not specifically disclose a base station wherein a control instruction instructs the control information control part to generate reception-stop-instruction information, from the base station control apparatus, and the control information control part, in a case of the communications part receiving the control instruction from the base station control apparatus, generates the reception-stop-instruction

information.

However, Onodera discloses a communication system wherein a system control section 1013 directs the CS call control section 1012 to stop transmitting control signals. The CS call control section 1012 stops transmitting control signals after the CS call control section 1012 confirmed that all communication channels were busy (see paragraphs 57-63). Onodera also discloses a system wherein when a PHS telephone is moved from a service area of one radio base station which is hereinafter called an original station to another service area of another radio base station which is hereinafter called a new station, **the PHS telephone receives a control signal from the new station and notifies the new station that the PHS telephone can communicate with the new station so that the PHS telephone can not receive a control signal from the original station any more** (see paragraph 5). Thus, the PHS telephone received a control signal (i.e., command or instruction) so that the PHS cannot receive a control signal from the original station anymore.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the references to arrive at the claimed invention. A motivation for doing so would have been to provide a seamless communication using a communication channel of another radio base station in a same service area (see paragraph 7).

Regarding claim 14, Hasegawa discloses a base station as described (see claim 12 rejection) further comprising a communication channel setting part for managing at least one communication channel which can be set for the communication terminal in the area (i.e., based on managing information in the base station equipment whether or not the mobile station equipment is within the own radio zone, one of the up-link stand-by permission level and the up-

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link stand-by degradation level may be selected and set) (see col. 17, lines 60-64), receiving a setting request for a communication channel from the communication terminal in the area which received the control information, and setting the communication channel for the communication terminal in the area having sent the setting request for the communication channel (i.e., the base station control equipment receives and transmits a variety of control information, including call requests, selection calling command, with the mobile station equipment located in the radio zone) (see col. 4, lines 22-27), wherein the control information control part analyzes a setting situation of the communication channel for the communication terminal in the area

Although, Hasegawa discloses a base station as described, Hasegawa does not specifically disclose a base station comprising generates the reception-stop-instruction information in a case of a number of vacant communication channels which are not set for the communication terminal in the area becoming equal to or less than a certain number.

However, Onodera discloses a communication system wherein a system control section 1013 directs the CS call control section 1012 to stop transmitting control signals. The CS call control section 1012 stops transmitting control signals after the CS call control section 1012 confirmed that all communication channels were busy (see paragraphs 57-63). Onodera also discloses a system wherein when a PHS telephone is moved from a service area of one radio base station which is hereinafter called an original station to another service area of another radio base station which is hereinafter called a new station, **the PHS telephone receives a control signal from the new station and notifies the new station that the PHS telephone can communicate with the new station so that the PHS telephone can not receive a control signal from the original station any more** (see paragraph 5). Thus, the PHS telephone received a control signal (i.e.,

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command or instruction) so that the PHS cannot receive a control signal from the original station anymore.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine both references to arrive at the claimed invention. A motivation for doing so would have been to provide a seamless communication by using a communication channel of another radio base station in a same service area (see paragraph 7).

Regarding claim 15, Hasegawa discloses a base station as described (see claim 12 rejection) further comprising a communication channel setting part for managing at least one communication channel which can be set for the communication terminal in the area (i.e., based on managing information in the base station equipment whether or not the mobile station equipment is within the own radio zone, one of the up-link stand-by permission level and the up-link stand-by degradation level may be selected and set) (see col. 17, lines 60-64), receiving a setting request for a communication channel from the communication terminal in the area which received the control information (see col. 4, lines 22-27), and setting the communication channel for the communication terminal in the area having sent the setting request for the communication channel (i.e., the base station control equipment receives and transmits a variety of control information, including call requests, selection calling command, with the mobile station equipment located in the radio zone) (see col. 4, lines 22-27).

Although, Hasegawa discloses a base station wherein the control information control part analyzes a setting situation of the communication channel for the communication terminal in the area (i.e., when any control information from the mobile station equipment is received, the base station control equipment analyzes the control information, and processes adaptive to these

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analysis results of the predetermined plural processes are successively carried out) (see col. 4, lines 28-33), Hasegawa does not specifically disclose a base station wherein the control information control part analyzes communication traffic of another communication terminal in the area for which the communication channel has been set, and in a case of the communication traffic of the another communication terminal in the area for which the communication channel has been set becoming equal to or greater than a specific level, generates the reception-stop-instruction information.

However, Onodera discloses a communication system comprising of a plurality of mobile telephones connected to a controller and a radio base station (see abstract and fig. 1). Onodera further discloses a communication system comprising generates the reception-stop-instruction information in a case of a number of vacant communication channels which are not set for the communication terminal in the area becoming equal to or less than a certain number (i.e., a communication system wherein a system control section 1013 directs the CS call control section 1012 to stop transmitting control signals. The CS call control section 1012 stops transmitting control signals after the CS call control section 1012 confirmed that all communication channels were busy (see paragraphs 10, 57-63). Onodera also discloses a system wherein when a PHS telephone is moved from a service area of one radio base station which is hereinafter called an original station to another service area of another radio base station which is hereinafter called a new station, **the PHS telephone receives a control signal from the new station and notifies the new station that the PHS telephone can communicate with the new station so that the PHS telephone can not receive a control signal from the original station any more** (see

paragraph 5). Thus, the PHS telephone received a control signal (i.e., command or instruction) so that the PHS cannot receive a control signal from the original station anymore).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine both references to arrive at the claimed invention. A motivation for doing so would have been to provide a seamless communication by using a communication channel of another radio base station in a same service area (see paragraph 7).

Regarding claim 16, Hasegawa discloses a base station as described above (see claim 11 rejection).

Although Hasegawa discloses a base station as described, Hasegawa does not specifically disclose a base station wherein the base station transmits the control information to a plurality of communication terminals in the areas, and the communications part, in a case of the control information control part generating the reception-stop-instruction information, transmits the reception-stop-instruction information to a specific communication terminal in the area, and makes the reception-stop-instruction information transmitted from the specific communication terminal in the area to another communication terminal in the area one by one.

However, Onodera discloses a communication system wherein the base station transmits the control information to a plurality of communication terminals in the areas (see paragraphs 57-63), and the communications part, in a case of the control information control part generating the reception-stop-instruction information, transmits the reception-stop-instruction information to a specific communication terminal in the area, and makes the reception-stop-instruction information transmitted from the specific communication terminal in the area to another communication terminal in the area one by one (i.e., However, Onodera discloses a

communication system wherein a system control section 1013 directs the CS call control section 1012 to stop transmitting control signals. The CS call control section 1012 stops transmitting control signals after the CS call control section 1012 confirmed that all communication channels were busy (see paragraphs 57-63). Onodera also discloses a system wherein when a PHS telephone is moved from a service area of one radio base station which is hereinafter called an original station to another service area of another radio base station which is hereinafter called a new station, **the PHS telephone receives a control signal from the new station and notifies the new station that the PHS telephone can communicate with the new station so that the PHS telephone can not receive a control signal from the original station any more** (see paragraph 5). Thus, the PHS telephone received a control signal (i.e., command or instruction) so that the PHS cannot receive a control signal from the original station anymore).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine both references to arrive at the claimed invention. A motivation for doing so would have been to provide a seamless communication using a communication channel of another radio base station in a same service area (see paragraph 7).

6. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hasegawa and Onodera in further view of Longoni, Pub. No. US 20040213193.

Regarding claim 8, the combination discloses a base station as described above (see claim 7 rejection).

Although the combination discloses a base station as described above, the combination does not specifically disclose a base station wherein the control information generating part

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generates the control information including a unique word, the control information control part gives an instruction to the control information generating part to change at least a part of the unique word, and the control information generating part generates the control information by changing at least a part of the unique word, based on the instruction of the control information control part.

However, Longoni discloses a base station (paragraph 13) wherein the coding format may be selected in a set-up phase of the dedicated channel based on corresponding set-up parameters of the dedicated channel. Thus, the structure of the transport frame can be changed when a change of the channel parameters of the dedicated channel has been detected (paragraphs 30 and 47). Thus, when the coding format is changed (e.g., by changing the length of the frame, which will render the frame length unique (i.e., unique word), the mobile terminal, which is no longer receiving control information is unable to recognize the control information.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as disclosed to arrive at the claimed invention. A motivation for doing so would have been to allow an efficient usage of transmission resources (see abstract).

Regarding claim 9, the combination discloses a base station as described above (see claim 7 rejection).

Although the combination discloses a base station as described above, the combination does not specifically disclose a base station wherein the control information generating part generates the control information including a unique word, the control information control part gives an instruction to the control information generating part to change at least a part of the unique word, and the control information generating part generates the control information by

changing at least a part of the unique word, based on the instruction of the control information control part.

However, Longoni discloses a base station (paragraph 13) wherein the coding format may be selected in a set-up phase of the dedicated channel based on corresponding set-up parameters of the dedicated channel. Thus, the structure of the transport frame can be changed when a change of the channel parameters of the dedicated channel has been detected (paragraphs 30 and 47). Thus, when the coding format is changed (e.g., by changing the length of the frame, which will render the frame length unique (i.e., unique word), the mobile terminal, which is no longer receiving control information is unable to recognize the control information.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as disclosed to arrive at the claimed invention. A motivation for doing so would have been to allow an efficient usage of transmission resources (see abstract).

7. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hasegawa and Onodera, in further view of Ishii, Pub. No. US 20040203734.

The combination discloses a base station as described above (see claims 7-9 rejections).

Although the combination discloses a base station as described, the combination does not specifically disclose a base station wherein the control information generated has LCCH (Logical Control CHannel).

However, Ishii discloses a base station wherein the control channel is composed of LCCH frames (see page 6, paragraph 90).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings to arrive at the claimed invention. A motivation for doing so would have been to allow an efficient usage of transmission resources (see Admission's abstract).

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pierre-Louis Desir whose telephone number is (571) 272-7799. The examiner can normally be reached on Monday-Friday 8:00AM- 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Pierre-Louis Desir


JOSEPH FEILD
SUPERVISORY PATENT EXAMINER